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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,063	09/13/2002	Karin Spalink	U01-0043(15)	2602
24239	7590	03/15/2005	EXAMINER	
MOORE & VAN ALLEN PLLC P.O. BOX 13706 Research Triangle Park, NC 27709			ABEL JALIL, NEVEEN	
			ART UNIT	PAPER NUMBER
			2165	

DATE MAILED: 03/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/065,063

Applicant(s)

SPALINK ET AL.

Examiner

Neveen Abel-Jalil

Art Unit

2165

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION\**

**Remarks**

1. The amendment filed on October 6, 2004 has been received and entered. Claim 15 has been cancelled. Therefore, claims 1-14, and 16-27 are now pending.
2. The newly amended abstract has been acknowledged.

***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-19 are rejected under 35 U.S.C. 101 because the claims are directed to a non-statutory subject matter, specifically, directed towards an data structure.

The Supreme Court has repeatedly held that abstractions are not patentable. "An idea of itself is not patentable". "Rubber Tip Pencil Co. V. Howard", 20 Wall.498, 07. Phenomena of nature, though just discovered, mental processes, abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work "Gottschalk v. Benson", 175 USPQ 673, 675 (S Ct 1972). It is a common place that laws of nature, physical phenomena, and abstract ideas are not patentable subject matter. "Parker v. Flook", 197 USPQ 193, 201 (S Ct 1978).

Database Structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are neither physical "things" nor statutory processes. Applicant's claims are not within any of the statutory classes. "A database

structure” should define structural and functional interrelationships between data structures or functional parts and a computer system which permit the data functions to be realized, and is statutory.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Durston et al. (U.S. Pub. No. 2003/0130849 A1) in view of Ayers (U.S. Patent No. 5,832,531).

As to claim 1, Durston et al. discloses a method of searching-by-number, comprising:  
receiving at least one digit or a sequence of digits and wildcards (See Durston et al. page 5, paragraph 0104); and

searching any numbers stored in a device to form a match list including any stored numbers matching the at least one digit or the sequence of digits and wildcards (See Durston et al. page 5, paragraphs 0097-0105).

Durston et al. does not teach continuing to receive wildcards until receiving a fist digit.

Ayers teaches continuing to receive wildcards until receiving a fist digit (See Ayers column 17, lines 4-47).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Brown et al. to include continuing to receive wildcards until receiving a fist digit.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Brown et al. by the teaching of Ayers to include continuing to receive wildcards until receiving a fist digit because it reduces processing time and provides better database access.

As to claim 2, Durston et al. as modified discloses comprising displaying the match list (See Durston et al. page 7, paragraph 0131).

As to claim 3, Durston et al. as modified discloses comprising ending the search in response to one of:

no stored numbers matching the at least one digit or the sequence of digits or wildcards (See Durston et al. page 5, paragraph 0097);

a displayed number being selected (See Durston et al. page 2, paragraph 0047);

a predetermined time period elapsing without an action by a user;

a predetermined number of digits or digits and wildcards being entered; and

a user aborting the search.

As to claim 4, Durston et al. as modified discloses comprising performing an intelligent pre-match before displaying any stored numbers matching the at least one digit or the sequence

of digits and wildcards (See Durstun et al. page 2, paragraph 0049).

As to claim 5, Durstun et al. as modified discloses comprising displaying the match list in a predetermined order (See Durstun et al. page 5, paragraph 0105).

As to claim 6, Durstun et al. as modified discloses comprising displaying the match list in an order corresponding to a position of the at least one digit or sequence of digits and wild cards in any stored numbers (See Durstun et al. page 3, paragraph 0056).

As to claim 7, Durstun et al. as modified discloses comprising displaying the match list in the order that the at least one digit or sequence of digits and wild cards are positioned from left to right in any stored numbers (See Durstun et al. page 7, paragraphs 0130-0131).

As to claim 8, Durstun et al. as modified discloses comprising displaying only one stored number of a group of stored numbers in the match list that are variations of a same phone number (See Durstun et al. page 2, paragraph 0048).

As to claim 9, Durstun et al. as modified discloses wherein the searching is accomplished at least in part by searching a call list, a missed call list and a phonebook (See Durstun et al. page 6, paragraph 0119).

As to claim 10, Durstun et al. as modified discloses wherein the call list, the missed call list and the phonebook are searched in a predetermined order (See Durstun et al. pages 8-9, paragraphs 0163-0165, also see Durstun et al. page 2, paragraph 0051).

As to claim 11, Durstun et al. as modified discloses comprising entering the at least one digit or sequence of digits and wild cards by voice recognition (See Durstun et al. page 2, paragraph 0044).

As to claim 12, Durstun et al. as modified discloses comprising selecting a search-by-number feature from a menu by voice activation (See Durstun et al. page 2, paragraphs 0047-0049).

8. Claims 13-14, and 16-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al. (U.S. Patent No. 6,026,398) in view of Ayers (U.S. Patent No. 5,832,531).

As to claim 13, Brown et al. discloses a method of searching-by-number, comprising:  
receiving a first entry (See Brown et al. page 2, paragraph 0051);  
searching the match list for numbers matching a sequence of entered digits and wildcards in response to receiving each additional entry that is a digit (See Brown et al. column 19, lines 54067, and see Brown et al. column 20, lines 1-17).

Brown et al. does not teach receiving an additional entry, if the first entry is a wildcard; repeating receiving an additional entry until a digit is received.

Ayers teaches receiving an additional entry, if the first entry is a wildcard; repeating receiving an additional entry until a digit is received (See Ayers column 17, lines 4-47).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Brown et al. to include receiving an additional entry, if the first entry is a wildcard; repeating receiving an additional entry until a digit is received.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Brown et al. by the teaching of Ayers to include receiving an additional entry, if the first entry is a wildcard; repeating receiving an additional entry until a digit is received because it reduces processing time and provides better database access.

As to claim 14, Brown et al. as modified discloses further comprising displaying the match list (See Brown et al. column 8, lines 1-16).

As to claim 16, Brown et al. as modified discloses comprising displaying a new match list including any numbers matching the sequence of entered digits and wildcards from a previous match list (See Brown et al. column 19, lines 54067, and see Brown et al. column 20, lines 1-17).

As to claim 17, Brown et al. as modified discloses comprising receiving additional entries until a predetermined number of digits and wildcards are entered (See Brown et al. column 19, lines 54067, and see Brown et al. column 20, lines 1-17).



As to claim 18, Brown et al. as modified discloses comprising ending the method in response to the occurrence of one of:

- receiving a predetermined signal;
- failing to match any numbers in the match list; and
- receiving a predetermined number of digits and wildcards (See Ayers column 7, lines 48-67, also see Ayers column 10, lines 1-36).

As to claim 19, Brown et al. as modified discloses wherein receiving the predetermined signal comprises one of:

- selecting a number from the match list (See Ayers column 12, lines 38-60); and
- receiving a clear or end signal.

As to claim 20, Brown et al. discloses a device including a search-by-number feature, comprising:

- a processor to search any stored numbers in response to receiving the at least one digit or the sequence of digits and wildcards and to form a match list in response to any stored numbers matching the at least one digit or sequence of digits and wildcards (See Brown et al. column 19, lines 43-67, and see Brown et al. column 20, lines 1-17);

- means for searching the match list for numbers matching a sequence of entered digits and wildcards (See Brown et al. column 19, lines 54-67, and see Brown et al. column 20, lines 1-17).

Brown et al. does not teach means for receiving an additional entry; means for repeating receiving an additional entry until a digit is received.

Ayers teaches means for receiving an additional entry (See Ayers column 17, lines 4-47); means for repeating receiving an additional entry until a digit is received (See Ayers column 17, lines 4-47).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Brown et al. to include means for receiving an additional entry; means for repeating receiving an additional entry until a digit is received.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Brown et al. by the teaching of Ayers to include means for receiving an additional entry; means for repeating receiving an additional entry until a digit is received because it reduces processing time and provides better database access.

As to claim 21, Brown et al. as modified discloses comprising a display to display the match list (See Brown et al. column 8, lines 1-16).

As to claim 22, Brown et al. as modified discloses comprising an intelligent pre-match feature to display only one stored number of a group of stored numbers in the match list that are variations of a same number (See Brown et al. column 17, lines 23-61, also see Brown et al. abstract).

As to claim 23, Brown et al. as modified discloses comprising a feature to end the search by the processor in response to one of:

no stored numbers matching the at least one digit or the sequence of digits or wildcards  
(See Brown et al. column 19, lines 54067, and see Brown et al. column 20, lines 1-17);  
a displayed number being selected (See Brown et al. column 9, lines 16-50);  
a predetermined time period elapsing after displaying any stored numbers matching the at  
least one digit or the sequence of digits and wildcards without an input from a user;  
a predetermined number of digits or digits and wildcards being entered; and  
a user aborting the search.

As to claim 24, Brown et al. as modified discloses wherein the at least one data storage  
device comprises at least one of: a call list, a missed call list and a phonebook (See Brown et al.  
column 19, lines 44-67).

As to claim 25, Brown et al. discloses a computer-readable medium having computer-  
executable instructions for performing a method, comprising:

receiving at least one digit or a sequence of digits and wildcards (See Brown et al.  
column 19, lines 54067, and see Brown et al. column 20, lines 1-17); and

searching any numbers stored in a device to form a match list including any stored  
numbers matching the at least one digit or the sequence of digits and wildcards (See Brown et al.  
column 19, lines 54067, and see Brown et al. column 20, lines 1-17);

searching the match list for numbers matching a sequence of entered digits and wildcards.

Brown et al. does not teach receiving any additional entries; repeating receiving any  
additional entries until a digit is received.

Ayers teaches receiving any additional entries; repeating receiving any additional entries until a digit is received (See Ayers column 17, lines 4-47).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Brown et al. to include receiving any additional entries; repeating receiving any additional entries until a digit is received.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Brown et al. by the teaching of Ayers to include receiving any additional entries; repeating receiving any additional entries until a digit is received because it reduces processing time and provides better database access.

As to claim 26, Brown et al. as modified discloses comprising displaying the match list (See Brown et al. column 8, lines 1-16).

As to claim 27, Brown et al. as modified discloses comprising performing an intelligent pre-match before displaying any stored numbers matching the at least one digit or the sequence of digits and wildcards (See Brown et al. column 19, lines 54067, and see Brown et al. column 20, lines 1-17).

### ***Response to Arguments***

9. Applicant's arguments with respect to claims 1-14, and 16-27 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Henry, Jr. (U.S. Patent No. 6,526,292 B1) teaches search strings until finding a digit.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neveen Abel-Jalil whose telephone number is 571-272-4074. The examiner can normally be reached on 8:30AM-5:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on 571-272-4038. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Neveen Abel-Jalil  
March 7, 2005

  
CHARLES RONES  
PRIMARY EXAMINER